REMARKS

The Applicants would like to extend their thanks to the Examiner for allowing a telephonic interview, on October 27, 2006, between the representative of the Applicants and the Examiner. During the telephonic interview, it was agreed that the representative of the Applicants made a clear distinction between the teaching of the present invention and the cited prior art reference Robinette et al. (U.S. Patent No. 6,351,474), Hiroaki (Japanese Publication No. 11-122556), and a combination thereof. The Applicants amended independent claims 2, 7, 17, 20, and 21 based on the Examiner's suggestions to clarify the meaning of certain abbreviations.

The Applicants also like to thank the Examiner for indicating that claims 14 and 20-21 are patentable if re-written to include the limitations of the corresponding base claims. The Applicants respectfully point out that, since claims 20 and 21 are independent claims, the Applicants consider claims 20 and 21 are now in an allowable condition in their amended form filed with this Response.

In the Office Action, dated August 9, 2006, it was stated that claims 2, 6-7, 9, 13-15, 17, 20-21 were pending and claims 2, 6-7, 9, 13-15, 17, 20-21 have been rejected. The Applicants respectfully point out that claims 4, 5, 16, and 19 were also pending due to the following reasons. In responding to the restriction requirement, dated November 29, 2005, the Applicants amended claims 4 and 16, on January 30, 2006, from depending from claim 1 to depending from claim 2. Due to this amendment, claims 5 and 19, which depend from claims 4 and 16, respectively, also depend from claim 2. The Applicants expressly requested that claims 4-5, 16, and 19 be included in the elected group I. Since the Examiner did not respond otherwise, claims 4-5, 16, and 19 are considered elected with Group I. Therefore, the only claims withdrawn are claims 1, 3, 8, 10-12, and 18. By this Response, the Applicants respectfully traverse the pending rejections for the reasons set forth below and submit claims 2, 4-7, 9, 13-17, and 19-21 for the Examiner's reconsideration.

Rejections Under 35 U.S.C. § 112

Claims 2, 6-7, 9, 13-15, 17, and 20-21 have been rejected under 35 U.S.C. § 112 second

paragraph for failing to particularly point out and distinctly claim the subject matter which the applicant

regards as their invention. However, the Examiner did not point out any specifics with regard to why

claims 7, 13, and 15 are indefinite. By this Response, the Applicants amended all claims except claims 13

and 16 for clarification, either directly addressing the Examiner's concerns or on Applicants' own

initiative to clarify. No disclaimer is made. By these amendment, the Applicants respectfully submit that

all claims overcome the indefiniteness rejection and are now in condition for allowance.

Rejections Under 35 U.S.C. § 102(e)

Claims 2, 6, 16, and 19 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S.

Patent No. 6,351,474 (Robinett et al.). The Applicants respectfully traverse the rejections.

In rejecting claim 2, the Examiner cited Robinett et al., column 36, lines 1+ and stated that

Robinett et al. teach the overwriting feature as recited in claim 2. A review of the cited portion of

Robinett et al. indicates that what is described relates to overwriting descrambled data over the

prescrambled data. As pointed out during the telephonic interview, the overwriting taught by Robinett et

al. is performed on the same data. That is, the originally scrambled data is overwritten using the

corresponding descrambled data (see column 35, line 52 – column 36, line 2). In addition, the Examiner

asserted that "the use of the PID is discussed in col 35 lines 64+." In our view, this argument is not

related to the issue regarding whether Robinett et al. teach the feature of overwriting performed between

two different transport streams (TSs).

Claim 2 recites "overwriting of packets corresponding to necessary packet identifiers (PIDs) in a

second transport stream (TS) is performed to unnecessary-packet areas corresponding to unnecessary

PIDs in a first TS." Notably, there are two distinct TSs. In addition, there are necessary and unnecessary

packets in each TS. However, the "overwriting prescrambled data" disclosed in Robinett et al. is with

respect to a single data stream. Therefore, Robinett et al. does not disclosed the overwriting feature as recited in claim 2.

It is well-settled that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since Robinette et al. fail to disclose and teach the overwriting feature as recited in claim 2, the Applicants respectfully submits that Robinette et al. do not anticipate claim 2. Thus, claim 2 is patentable. Therefore, the Applicants respectfully request that the rejection of claim 2 under 35 U.S.C. §102(e) be withdrawn.

Claims 6, 16, and 19 depend from claim 2. Therefore, claims 6, 16, and 19 are patentable at least for the reasons stated above with respect to claim 2 and for the additional features recited therein.

Rejections Under 35 U.S.C. § 103(a)

Claims 7, 9, 13 and 15 have been rejected under under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,351,474 (Robinett et al.). The Applicants respectfully traverse this rejection.

In rejecting claim 7 based on obviousness, the Examiner stated that Robinett et al. teach detecting unnecessary (null) packets, extracting necessary packets, and overwriting the extracted packets to the unnecessary (null) packets. The Examiner cited column 40, lines 1-57 of Robinett et al. As discussed in the telephonic interview, according to Robinett et al., multiple data streams to be multiplexed are placed in multiple connection queues, each containing descriptors of the to-be-scheduled transport packets of a separate incoming data stream (see, Column 40, lines 11-20). Each packet in a data stream is associated with a departure time stamp, based on which the packet is scheduled to be output (multiplexed). Robinett et al. specifically teach that all null transport packets in each data stream are discarded (see column 40, lines 33-34, lines 40-42). That is, no connection queue keeps any null packet. When null packets of a particular TS are discarded, it causes a discontinuity in departure time. While conventionally this will create a vacant time slot, Robinett et al. teach to selectively assign the vacant time slots to packets from

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lower priority queue(s). Thus, no overwriting happens in this process because null packets are never stored in the connection queues.

As presented in the Response to a previous Office Action, dated February 23, 2006, overwriting requires "writing new data over what is already there" or "to record new data on top of already stored data". Rebinett et al., discard all the null packets and, thus, there is no space originally occupied by the null packet that can be overwritten using other packets. In addition, the newly cited evidence of "overwriting" under Robinette et al. is on a single data stream rather than between two distinct transport streams (TSs), as discussed above. Therefore, the new evidence of Robinette et al. does not support the assertion that Robinett et al. teach or suggest "packet-overwriting means for overwriting packets extracted ... to said unnecessary-packet areas detected by said unnecessary-packet detecting means in the first TS", as recited in claim 7. Therefore, the Applicants respectfully submit that claim 7 is not obvious over Robinette et al.

Claims 9, 13 and 15 depend from claim 7. Therefore, claims 9, 13, and 15 are patentable at least for the reasons stated above with respect to claim 7 and for the additional features recited therein. Therefore, the Applicants respectfully request that the rejection of claims 7, 9, 13, and 15 under 35 U.S.C. §103(a) be withdrawn.

Claim 17 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 11-122556 (Saeki Hiroaki), in view of Robinett et al. The Applicants respectfully traverse this rejection.

In rejecting claim 17, the Examiner conceded that "Saeki [Hiroaki] does not specifically teach extracting one necessary packet and overwrite to the unnecessary packets are onto the different TSs." but stated that "Robinett et al. teach those as described in [the] claim[s] 2 and 5." First of all, the Examiner did not show any motivation to combine Hiroaki with Robinett et al. Hiroaki teaches a receiver and there is no motivation to suggest to combine his receiver with a multiplexer, which Robinett et al. disclose. Second, as analyzed above, Robinett et al. do not teach the feature of "overwriting packets extracted by said necessary-packet extracting means to said unnecessary-packet areas detected by said unnecessary-

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packet detecting means in the first TS", as recited in claim 17. Therefore, claim 17 is not obvious over Hiroaki in view of Robinett et al.

Objection

Claims 14 and 20-21 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to include the limitations of the base claim and any intervening claims, and to overcome any 112 second paragraph problems. As discussed above, since claim 14 depends from claim 7, which is patentable, claim 14 is patentable for at least the same reasons stated above with respect to claim 7 and for additional features recited therein. In addition, as pointed out above, claims 20 and 21 are independent claims. By this Response, claims 20 and 21 have been amended to clarify the invention. The Applicants respectfully submit that the Examiner's objection of claims 14, 20-21 has been overcome and, therefore, claims 20-21 are now in condition for allowance.

Claims 4 and 5

The Examiner did not make any objection or rejection to claims 4-5. Therefore, claims 4-5 are considered allowed.

Conclusion

The Applicants have addressed all rejections/objection raised by the Examiner. Accordingly, it is believed that all pending claims are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of

this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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